

**WASTEWATER-LAND APPLICATION PERMIT  
LA-000103-04**

**Glanbia Foods, Inc. LOCATED AT 1728 South 2300 East, Gooding, ID 83330** IS HEREBY AUTHORIZED TO CONSTRUCT, INSTALL, AND OPERATE A WASTEWATER-LAND APPLICATION TREATMENT SYSTEM IN ACCORDANCE WITH THE WASTEWATER-LAND APPLICATION RULES (IDAPA 58.01.17), THE WATER QUALITY STANDARDS AND WASTEWATER TREATMENT REQUIREMENTS (IDAPA 58.01.02), THE GROUND WATER QUALITY RULE (IDAPA 58.01.11), AND ACCOMPANYING PERMIT APPENDICES AND REFERENCE DOCUMENTS. THIS PERMIT IS EFFECTIVE FROM THE DATE OF SIGNATURE AND EXPIRES ON **November 1, 2005.**



Doug Howard  
Twin Falls Regional Office Administrator  
Idaho Department of Environmental Quality

10-25-04  
Date

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
601 Pole Line Road, Suite 2  
Twin Falls, Idaho 83301  
(208) 736-2190  
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**POSTING ON SITE RECOMMENDED**

## B. Permit Contents, Appendices, and Reference Documents

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1. Plan of Operation (Operation and Maintenance Manual)
2. Nuisance Odor Management Plan
3. Grazing Management Plan
4. Waste Solids Management Plan (if necessary)

The Sections, Appendices, and Reference Documents listed on this page are all elements of Wastewater-Land Application Permit LA-000103-04 and are enforceable as such. This permit does not relieve Glanbia Foods, Inc., hereafter referred to as the permittee, from responsibility for compliance with other applicable federal, state or local laws, rules, standards or ordinances.

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## C. Abbreviations, Definitions

Ac-in	Acre-inch. The volume of water or wastewater to cover 1 acre of land to a depth of 1 inch. Equal to 27,154 gallons.
BMP or BMPs	Best Management Practice(s)
COD	Chemical Oxygen Demand
DEQ or the Department	Idaho Department of Environmental Quality
Director	Director of the Idaho Department of Environmental Quality, or the Directors Designee, i.e. Regional Administrator
ET	Evapotranspiration – Loss of water from the soil and vegetation by evaporation and by plant uptake (transpiration).
GS	Growing Season – Typically April 01 through October 31 (214 days).
GW	Ground Water
GWQR	IDAPA 58.01.11 “Ground Water Quality Rule”
Handbook or Guidelines	Handbook for Land Application of Municipal and Industrial Wastewater, DEQ, April 1996
HLR <sub>gs</sub>	Growing Season Hydraulic Loading Rate. Includes any combination of wastewater and supplemental irrigation water applied to land application hydraulic management units during the growing season. The HLR <sub>gs</sub> limit is specified in Section E. Permit Limits and Conditions.
HLR <sub>ngs</sub>	Non-Growing Season Hydraulic Loading Rate. Includes any combination of wastewater and supplemental irrigation water applied to each hydraulic management unit during the non-growing season. The HLR <sub>ngs</sub> limit is specified in Section E. Permit Limits and Conditions.
HMU	Hydraulic Management Unit (Serial Number designation is MU)
IDAPA	Idaho Administrative Procedures Act
IWR	<p>Irrigation Water Requirement – Any combination of wastewater and supplemental irrigation water applied at rates commensurate to the moisture requirements of the crop, and calculated monthly during the growing season. Calculation methodology for the IWR can be found at the following website: <a href="http://www.kimberly.uidaho.edu/water/appndxet/index.shtml">http://www.kimberly.uidaho.edu/water/appndxet/index.shtml</a>. The equation used to calculate the IWR at this website is:</p> $IWR = (CU - P_e) / E_i$ <p>CU is the monthly consumptive use for a given crop in a given climatic area. CU is synonymous with crop evapotranspiration;</p> <p>P<sub>e</sub> is the effective precipitation. CU minus P<sub>e</sub> is synonymous with the net irrigation requirement (IR);</p> <p>E<sub>i</sub> is the irrigation system efficiency. To obtain the gross irrigation water requirement (IWR), divide the IR by the irrigation system efficiency.</p>
IR	Mean Irrigation Requirement
lb/ac-day	Pounds (of constituent) per acre per day
MG	Million Gallons (1 MG = 36.827 acre-inches)
MGA	Million Gallons Annually (per WLAP Reporting Year)
NGS	Non-Growing Season – Typically November 01 through March 31 (151 days).
NVDS	Non-Volatile Dissolved Solids – Equal to Total Dissolved Solids less Volatile Dissolved Solids.
O&M manual	Operation and Maintenance Manual, also referred to as the Plan of Operation
QA/QC	Quality Assurance/Quality Control
SAR	Sodium Absorption Ratio

## C. Abbreviations, Definitions

SI	Supplemental Irrigation water applied to the land application treatment site.
Soil AWC	Soil Available Water Holding Capacity – The water storage capability of a soil to a depth at which plant roots will utilize (typically 60 inches or root limiting layer).
SPCC	Spill Prevention, Containment, and Countermeasures
SMU	Soil Monitoring Unit (Serial Number designation is SU)
SW	Surface Water
TDS	Total Dissolved Solids or Total Filterable Residue
TDIS	Total Dissolved Inorganic Solids – The summation of chemical concentration results in mg/L for the following common ions: calcium, magnesium, potassium, sodium, chloride, sulfate, and 0.6 times alkalinity (alkalinity expressed as calcium carbonate). Nitrate, Silica and fluoride shall be included if present in significant quantities (i.e. > 5 mg/L each).
TMDL	Total Maximum Daily Load – The sum of the individual waste-load allocations (WLAs) for point sources, Load Allocations (LAs) for non-point sources, and natural background. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. IDAPA 58.01.02 <i>Water Quality Standards and Wastewater Treatment Requirements</i> .
Typical Crop Uptake	Typical Crop Uptake is defined as the median constituent crop uptake from the three (3) most recent years the crop has been grown. Typical Crop Uptake is determined for each hydraulic management unit. For new crops having less than three years of on-site crop uptake data, regional crop yield data and typical nutrient content values, or other values approved by the Idaho Department of Environmental Quality may be used.
USGS	United States Geological Survey
WLAP	Wastewater Land Application Permit (or Program)
WLAP Reporting Year	The reporting year begins with the non-growing season and extends through the growing season of the following year, typically November 1 through October 31. For example, the 2000 Reporting Year was November 1, 1999 through October 31, 2000.
WRCC	Western Regional Climate Center
WW	Wastewater applied to the land application treatment site.

## D. Facility Information

Legal Name of Permittee	Glanbia Foods, Inc., Gooding Facility
Type of Wastewater	Cheese and whey processing wastewater generated by the Gooding facility
Method of Treatment	Slow rate land application
Type of Facility	Cheese and whey processor
Facility Location	Processing plant located at 1728 South 2300 East, Gooding, Idaho
Legal Location of Land Application Site	Parts of Township 6 South, Range 15 East, Section 12 and Township 6 South, Range 16 East, Section 7
County/USGS Quadrangle	Gooding and Tunupa
Soils on Site	Ackleton fine sandy loam, Ackleton-Jestrick-Rock Outcrop complex, Harsan-Wako complex, and Idow-Wendell-Minveno complex
Depth to Ground Water	Approximately 150 to 180 feet
Beneficial Uses of Ground Water	Domestic, agricultural, industrial
Nearest Surface Water	The South Gooding Main Canal runs along a portion of the northern border. The B-2 Lateral runs through pivots W2, W3, W5 and field A3. The Little Wood River is located approximately 2 miles north of the site.
Responsible Official Mailing Address Phone / Fax	Doug Pettinger, Environmental Director 1728 South 2300 East Gooding, Idaho 83330 (208) 934-9812 / (208) 934-9442

## E. Site Specific Permit Conditions

- 1.) The permittee is allowed to apply wastewater and treat it on a land application site as prescribed in the table below and in accordance with all other applicable permit conditions and schedules. No limit in this table shall be exceeded.

Category	Permit Limits and Conditions
Type of Wastewater	Cheese and whey processing wastewater from Glanbia Foods, Inc., Gooding facility
Application Site Area	530.4 acres
Application Season	Year-round
Growing Season (GS)	April 1 through October 31 (214 days)
Non-growing Season (NGS)	November 1 through March 31 (151 days)
Reporting Year for Annual Loading Rates	November 1 through October 31
Growing Season Maximum Hydraulic Loading Rate, Each Hydraulic Management Unit (HMU). HMUs are defined in Appendix 1  Note: Applies to the total volume of wastewater and supplemental irrigation water applied	<p>The GS Hydraulic Loading Rate shall be no greater than the Irrigation Water Requirement (IWR) using data from the Shoshone IWNW table of the following University Of Idaho web site: <a href="http://www.kimberly.uidaho.edu/water/appndxet/index.shtml">http://www.kimberly.uidaho.edu/water/appndxet/index.shtml</a>. The IWR for the crop grown is equal to the Mean Irrigation Requirement (IR) data from these tables divided by the irrigation system efficiency.</p> <p>In lieu of these tables, current climatic and evaporation data, or 30-year average data may be used to calculate the IWR, as defined in the 1994 Technical Interpretive Supplement, pages IV-6 and IV-7. Assume no carryover soil moisture and a leaching rate of zero in calculating the IWR. Application shall generally follow consumptive use rates for the crop throughout the season. If the permittee elects to use current climatic and evaporative conditions to establish the GS Hydraulic Loading Rate limitation, the Operation and Maintenance (O&amp;M) Manual required under Compliance Activity No. CA-103.4-01 shall include a section addressing the source and/or method to be used to determine such current climatic and evaporative conditions.</p>

## E. Site Specific Permit Conditions

Non-Growing Season Maximum Hydraulic Loading Rate, each HMU	<p>The maximum NGS hydraulic loading rate is equal to: Soil Available Water-Holding Capacity (AWC) – Precipitation<sub>NGS</sub> + Evapotranspiration<sub>NGS</sub> for each HMU using the following values:</p> <p>Soil AWC:           dependent on soil type Precip., NGS:       6.30 inches (Nov 1 through March 31) ET NGS:            7.80 inches (Nov 1 through March 31)</p> <p>The maximum hydraulic loading rate for each HMU is shown below:</p> <table><tr><th><u>HMU #</u></th><th><u>Field Description</u></th><th><u>Million Gallons</u></th></tr><tr><td>1</td><td>Pivot 1 and Fields 5, A, and B</td><td>20.91</td></tr><tr><td>2</td><td>Pivot 2</td><td>22.97</td></tr><tr><td>3</td><td>Fields 3, 4, E, and H</td><td>24.46</td></tr><tr><td>4</td><td>Pivot 7 and Fields D, F, and G</td><td>17.40</td></tr><tr><td>5</td><td>Pivot 6 and Field C</td><td>10.67</td></tr></table> <p>The maximum total NGS hydraulic loading rate is 96.42 million gallons. In addition, the maximum loading rate for each HMU shall not be exceeded.</p>	<u>HMU #</u>	<u>Field Description</u>	<u>Million Gallons</u>	1	Pivot 1 and Fields 5, A, and B	20.91	2	Pivot 2	22.97	3	Fields 3, 4, E, and H	24.46	4	Pivot 7 and Fields D, F, and G	17.40	5	Pivot 6 and Field C	10.67
<u>HMU #</u>	<u>Field Description</u>	<u>Million Gallons</u>																	
1	Pivot 1 and Fields 5, A, and B	20.91																	
2	Pivot 2	22.97																	
3	Fields 3, 4, E, and H	24.46																	
4	Pivot 7 and Fields D, F, and G	17.40																	
5	Pivot 6 and Field C	10.67																	
Runoff and Ponding	<p>The permittee shall manage the wastewater land application site in accordance with the approved Runoff Management Plan, required by Compliance Activity No. CA-103.4-04. To prevent runoff from the site, Best Management Practices (BMPs) shall be used around all areas where runoff may potentially occur. Berms and other BMPs shall be used to protect the wellhead of on-site irrigation wells. New BMPs shall be reviewed and approved by DEQ prior to implementation.</p> <p>The permittee shall, to the maximum extent reasonably possible, operate the land application facility to prevent ponding. This includes, but is not limited to, the obligation to install, operate, and maintain equipment, structures, and other BMPs to prevent and correct ponding. At all times, the permittee shall prevent wastewater from ponding in the fields to the point where the ponded water putrefies or supports vectors or insects. No application of wastewater is allowed if standing water or ice is present in the HMU.</p> <p>Surface water collection sites adjacent to the Gnesa property shall only be used to collect runoff from rain or snowmelt. Water collected at these sites shall be immediately pumped out of the collection site.</p>																		
Livestock Grazing	All grazing activities shall be conducted in accordance with the permittee’s approved Grazing Management Plan.																		
Allowable Crops	No crops for direct human consumption are allowed.																		

## E. Site Specific Permit Conditions

Ground Water Quality	Wastewater land application activities conducted by the permittee shall not cause a violation of the <i>Ground Water Quality Rule</i> (GWQR), IDAPA 58.01.11, as now existing or later amended.
Maximum COD Loading, Pounds/acre-day, each HMU	50 pounds/acre-day seasonal average for the GS. 50 pounds/acre-day seasonal average for the NGS.
Maximum Nitrogen Loading Rate, pounds/acre-year, each HMU  (from all sources including waste solids and supplemental fertilizers)	150% of typical crop uptake.  Typical Crop Uptake is defined as the median crop uptake of nitrogen for the three (3) most recent years the crop has been grown. Typical Crop Uptake is determined for each HMU.  For HMUs having less than three (3) years of crop uptake data, best estimates of crop uptake using a method approved by DEQ shall be used.
Maximum Phosphorus Loading Rate, pounds/acre- year, each HMU  (from all sources including supplemental fertilizers)	None.  In the event that DEQ determines phosphorous limits are necessary, DEQ shall issue a draft modification to the permit and a staff analysis, and shall process the modification as provided in IDAPA 58.01.17.400.
Construction Plans	Prior to construction of all wastewater facilities associated with the land application system expansion, plans and specifications shall be reviewed and approved by DEQ. Within 30 days of completion of construction, the permittee shall submit as-built plans for review and approval.
Buffer Zones and Wellhead Protection	Notwithstanding any other provision of this permit, including without limitation the buffer zones set forth herein, the permittee shall comply with the following: 1) wastewater applied by the permittee shall be restricted to the premises of the land application site, and 2) the permittee shall not discharge wastewater to surface waters of the state, without first obtaining all permits and other authorizations required by state and federal law.  Except where otherwise indicated in this permit, the following buffer zone distances shall be provided between wastewater application mechanisms and the following: <ul style="list-style-type: none"> <li>• Permittee's Property Lines: 50 feet or more</li> <li>• Man-made Surface Waters: 50 feet or more</li> <li>• Private Wells: 50 feet or more</li> <li>• Public Water Supply Wells: 50 feet or more</li> </ul> The permittee shall at all times observe the buffer zones as specified in Appendix 3 of this permit and the following: <ul style="list-style-type: none"> <li>• No untreated wastewater shall be applied within 1,000 feet of either of the two residences located on the Gnesa property.</li> </ul>

## E. Site Specific Permit Conditions

<p>Buffer Zones and Wellhead Protection (continued)</p>	<ul style="list-style-type: none"> <li>• No wastewater, treated or untreated, shall be applied within 400 feet of either of the two residences located on the Gnesa property.</li> <li>• No treated or untreated wastewater application by sprinklers within 1,000 feet of either of the two residences located on the Gnesa property.</li> <li>• No wastewater shall be applied to the northwest corner of the Wolfe property; only non-wastewater will be used for irrigation in this location.</li> <li>• Wastewater application on areas designated Linear 3 and Linear 4 on the site map in Appendix 3 shall only be done with linear irrigation devices with drag tubes, not with sprinklers.</li> <li>• No wastewater shall be applied within 300 feet south of the Wood residence, or within 50 feet south of the boundary between the Wolfe and Wood properties, whichever is greater. In the event of odor or other problems caused by wastewater land application, the buffer zone requirements for Linear 3 and Linear 4 may be increased per consent of the permittee and Wood; however, the buffer zone will not be increased greater than 400 feet of the Wood residence.</li> <li>• The permittee shall construct, operate, and maintain a system such that natural drainage from the south boundary of the Wood property to the north boundary of the Wolfe property shall be maintained.</li> <li>• No wastewater shall be applied within 300 feet of the Donaldson residence.</li> <li>• No wastewater shall be applied within 50 feet of the property boundary between the Wolfe and Donaldson properties.</li> <li>• No wastewater application by sprinklers within 1,000 feet of the Donaldson residence.</li> <li>• No wastewater shall be applied within 300 feet of the Mallett residence.</li> <li>• No wastewater application by sprinklers within 1,000 feet of the Mallett residence.</li> </ul> <p>Prior to using surface irrigation, the permittee shall submit plans and specification detailing the surface irrigation system to DEQ for approval. The permittee shall not surface irrigate with wastewater prior to DEQ approval of plans and specifications.</p>
<p>Posting Requirements</p>	<p>Signs shall be posted around the land application near all homes located around the perimeter of the site and at the entrance of all access roads into the site. At a minimum, the signs shall state "No Trespassing" or equivalent.</p>

## E. Site Specific Permit Conditions

Odor Management	The land application facilities and other operations associated with the facility shall not create a public health hazard or nuisance conditions including odors. The site shall be operated in accordance with the permittee's approved Nuisance Odor Management Plan. In the event that nuisance odors, verified by DEQ, occur, the Plan shall be revised as necessary to eliminate or minimize the reoccurrence of nuisance odors.
Supplemental Irrigation Water Protection	Where wastewater and fresh irrigation water interconnections exist in the distribution system, a DEQ-approved backflow prevention device shall be installed.
Waste Solids Management Plan	Prior to application of any waste solids on the land application site, a DEQ approved waste solids management plan is required.  See Section I, No. 4.

## F. Monitoring Requirements

- 1.) The permittee shall monitor and measure parameters as stated in the Facility Monitoring Schedule in this section.
- 2.) Samples shall be collected at times and locations that represent typical environmental and process parameters being monitored.
- 3.) Appropriate analytical methods, as given in the DEQ *Handbook for Land Application of Municipal and Industrial Wastewater, April 1996*, or as approved DEQ, shall be employed.
- 4.) A description of approved sample collection methods, appropriate analytical methods, and QA/QC protocol shall be included in the Plan of Operation manual.
- 5.) Unless otherwise agreed to in writing by the DEQ, data collected and submitted shall include, but not be limited to, the parameters and frequencies in the table on the following page.
- 6.) Ten (10) soil sample locations shall be selected for each soil management unit. Three (3) soil samples shall be collected at each sample location, one at 0-12 inches, one at 12-24 inches, and one at 24-36 inches. The soil samples collected at each depth shall be composited to yield three (3) samples for analysis from each management unit.
- 7.) Ground water monitoring wells shall be purged a minimum of three (3) casing volumes prior to obtaining a sample of ground water.
- 8.) Annual and monthly reporting of monitoring requirements is described in Section H, Reporting Requirements.
- 9.) Monitoring locations are defined in Appendix 1, "Environmental Monitoring Serial Numbers".

### **Facility Monitoring Schedule**

Frequency	Monitoring Point	Description/Type of Monitoring	Parameters
Daily	Flow meter measurements of wastewater stream and irrigation water stream(s) delivered into Wolfe site blending station, as indicated in the segregation plan required under Compliance Activity No. CA-103.4-01	Volumes of wastewater stream and irrigation streams delivered to the Wolfe site	Volume of each stream (million gallons)
Daily	Flow meter measurement of wastewater and supplemental irrigation water to each HMU, as indicated in the segregation plan required under Compliance Activity No. CA-103.4-01	Total volume of wastewater and irrigation water to each HMU	Total volume (million gallons and inches) to each HMU

## F. Monitoring Requirements

Frequency	Monitoring Point	Description/Type of Monitoring	Parameters
As specified	Wastewater stream delivered to Wolfe site, as indicated in the segregation plan required under Compliance Activity No. CA-103.4-01 (prior to blending with supplemental irrigation water at the Wolfe site)	Unless otherwise approved by DEQ in writing, one weekly, 24-hour composite sample as detailed in the segregation plan required under Compliance Activity No. CA-103.4-01	<p><b>Weekly</b> for Chemical Oxygen Demand, Total Kjeldahl Nitrogen, Ammonia-Nitrogen, Nitrite + Nitrate-Nitrogen, Total Phosphorous, Electrical Conductivity, pH</p> <p><b>Monthly</b> for TDIS</p> <p>Note: TDIS is the summation of chemical concentration results for the following common ions in mg/L: Calcium, Magnesium, Potassium, Sodium, Chloride, Sulfate, and 0.6 x Alkalinity (Alkalinity measured as Calcium Carbonate)</p>
Monthly (Aug 2003 through Aug 2004 only)	Wastewater stream delivered to the Wolfe site	Grab sample	<p>Bacterial count for <i>fecal streptococcus</i> and <i>psuedomonas aeruginosa</i>.</p> <p>Presence/absence for <i>salmonella</i>, if present, determine presence of <i>salmonella enteritidis</i>.</p> <p>Presence/absence for <i>listeria</i>, if present, determine presence of <i>listeria monocytogenes</i>.</p> <p>Bacterial count for <i>E.coli</i>. If the count is 576 organisms per 100 milliliters or more, determine presence of <i>E. coli O157:H7</i>.</p>
Quarterly in Nov, Feb, May, and Aug (first year only)	Wastewater stream delivered to the Wolfe site	24-hour composite sample	Total Dissolved Solids (TDS), Volatile Dissolved Solids (VDS)
Daily	Flow meters on well water and B-2 Lateral at Wolfe site	Supplemental Irrigation Water added at Wolfe site	Volume (million gallons and acre-inches) to each HMU.
Annually (July)	Supplemental Irrigation Water, well water	Grab sample	Nitrate-Nitrogen, Total Phosphorous, Total Dissolved Solids
Annually (July)	Supplemental Irrigation Water, B-2 Lateral	Grab sample	Nitrate-Nitrogen, Total Phosphorous, Total Dissolved Solids

## F. Monitoring Requirements

Daily when land-applying wastewater during NGS	Field conditions, each HMU in use		Field conditions observations (frozen, ice layer, areas of ponding, or other unusual conditions)
Monthly	Each HMU	Calculate IWR for each crop type. Identify the irrigation system efficiency and the method of calculation ("Handbook", Agrimet, etc.)	Volume (million gallons and acre-inches), record monthly
Twice per year (April and Nov)	Each soil monitoring unit	See note 6	Electrical Conductivity, Nitrate-Nitrogen, Ammonium Nitrogen, Plant Available Phosphorous (Olsen Method), pH
Annually (Nov)	Each soil monitoring unit	See note 6	Sodium Absorption Ratio
Quarterly (Jan, April, July, Oct)	Ground water monitoring wells (after installation of monitoring wells; refer to Compliance Activity No. CA-103.4-03)	See note 7	Nitrate-Nitrogen, Total Phosphorous, Total Dissolved Solids, Chloride, Water Table Depth, Total Iron, Total Manganese, Total Coliform, Water Table Elevation  Note: Analytical results are required for dissolved iron and/or manganese only if the results for total iron and/or manganese exceed the standards in IDAPA 58.01.11.200.01.b
Quarterly (Jan, April, July, Oct)	Private wells at or within 500 feet of the Wolfe site (with owner's permission)		Nitrate-Nitrogen, Total Dissolved Solids, Chloride, Total Iron, Total Manganese, Total Coliform  Note: Analytical results are required for dissolved iron and/or manganese only if the results for total iron and/or manganese exceed the standards in IDAPA 58.01.11.200.01.b

## F. Monitoring Requirements

October 2004 and October 2005	Ground water monitoring wells (after installation of monitoring wells; refer to Compliance Activity No. CA-103.4-03)	Common ions, see note 7	Bicarbonate + Carbonate, Sodium, Calcium, Magnesium, Potassium, and Sulfate  Note: The common ions Potassium and Chloride are included in quarterly sampling requirements
Annually	Each HMU (to determine compliance with IWR limit)	Calculate GS hydraulic loading rate (wastewater and supplemental irrigation water)	Million gallons and inches
	Each HMU (to calculate constituent loading rates during the GS)	Calculate GS hydraulic loading rate of wastewater stream delivered to the Wolfe site	Million gallons and inches
	Each HMU	Calculate NGS hydraulic loading rate	Million gallons and inches
	Each HMU	Calculate seasonal average COD loading rate (GS and NGS)	Pounds/acre-day
	Each HMU	Calculate wastewater nitrogen loading rate	Pounds/acre-day
	Each HMU	Calculate wastewater TDIS loading rate	Pounds/acre-day
	Each HMU	Calculate wastewater phosphorous loading rate	Pounds/acre-year
	Each HMU	Fertilizer application rates	Type and pounds/acre-year
	Each HMU	Crop type and yield	Pounds/acre and total pounds per HMU (specify moisture basis)
	Each HMU	Plant tissue analysis: Composite sample of harvested portion	Nitrate-Nitrogen, Total Kjeldahl Nitrogen, Total Phosphorous, ash (dry weight basis)
	Each HMU	Calculate crop nitrogen, phosphorous, and ash removal	Pounds/acre and total pounds per HMU

## G. Compliance Schedule for Required Activities

The Activities in the following table shall be completed on or before the Completion Date unless modified by DEQ in writing.

<b>Compliance Activity Number</b>  <b>Completion Date</b>	<b>Compliance Activity Description</b>
<p style="text-align: center;"><b>CA-103.4-01</b>  <b>O&amp;M Manual</b>  <b>30 days after permit issuance</b></p>	<p>A Plan of Operation (Operation and Maintenance Manual or O&amp;M Manual) for the wastewater land application facilities, incorporating the requirements of this permit, shall be submitted to DEQ for review and comment. The O&amp;M manual shall be designed for use as an operator guide for actual day-to-day operations to meet permit requirements.</p> <p>The O&amp;M Manual shall include detailed plans addressing prevention of off-site drift of wastewater from the wastewater land application system. Implementation of this plan may require installation of a sufficiently functional weather station. In the event that a weather station is required, the permittee shall submit plans and specifications to DEQ for furnishing and installing the weather station. Plans and specifications shall be approved by DEQ prior to installation.</p> <p>The O&amp;M Manual shall include a segregation plan documenting the methodologies to be used for segregation and analysis of wastewater and irrigation water flows. The segregation plan shall clearly identify which distribution systems/service connections are to be utilized for wastewater and irrigation water transfer during normal operation(s), locations of sampling station(s) and flowrate meters, and operational parameters and/or sampling methodologies necessary to quantify hydraulic and constituent loading at the land application sites. The segregation plan shall be approved by DEQ prior to implementation.</p> <p>A Contingency Plan shall be included as part of the O&amp;M Manual. The Contingency Plan shall address, but is not limited to, the following:</p> <ol style="list-style-type: none"> <li>1. Spill Prevention, Containment, and Countermeasures (SPCC) Plan</li> <li>2. Emergency Response</li> <li>3. System Upsets</li> </ol> <p>The Contingency Plan is not required in accordance with the SPCC plan requirements of 40 CFR 112, Oil Pollution Prevention.</p> <p>Upon approval, the O&amp;M Manual shall be incorporated by reference into this permit and shall be enforceable as a part of this permit.</p>

## G. Compliance Schedule for Required Activities

<b>Compliance Activity Number</b> <b>Completion Date</b>	<b>Compliance Activity Description</b>
<b>CA-103.4-02</b> <b>Laboratory Procedures and Annual Reporting Methodology</b> <b>30 days after permit issuance</b>	The permittee shall provide a report providing a description of sample collection methods, analytical methods, and QA/QC procedures for both in-house and outside laboratory testing for all monitoring requirements in Section F. The methodologies and procedures in the report shall be integrated with the wastewater segregation plan required under Compliance Activity No. CA-103.4-01, and shall include the methodology proposed for calculating hydraulic and constituent loading rates for the new site.  Upon DEQ review and approval, the laboratory procedures and methodology shall be incorporated into the O&M Manual.
<b>CA-103.4-03</b> <b>Ground Water Monitoring Wells</b> <b>As specified</b>	Ground water monitoring wells shall be installed two (2) months after DEQ approval of plans and specifications for the monitoring wells. The wells shall be installed in accordance with DEQ's approval for design, specifications, and location(s).
<b>CA-103.4-04</b> <b>Runoff Management Plan</b> <b>30 days after permit issuance</b>	The permittee shall prepare and submit to DEQ for approval a Runoff Management Plan with control structures and other BMPs (e.g., berms, collections basins, etc.) designed to prevent runoff from any site or fields used for wastewater land application to property not owned by Glanbia except in the event of a 25-year, 24-hour storm event or greater, using the Western Regional Climate Center (WRCC) Precipitation Frequency Map, Figure 28, 'Isopulvials of 25-year 24-hour Precipitation.' For this site, the 25-year, 24-hour event is 2.0 inches.  Upon approval of the plan by DEQ, the permittee shall implement the Runoff Management Plan, and shall construct, operate, and maintain the control structures and other BMPs in accordance with the plan to control runoff.
<b>CA-103.4-05</b> <b>TDS Impact Analysis</b> <b>May 1, 2005</b>	Submit a TDS impact analysis to DEQ for review and approval. The plan shall 1) identify sources of TDS in the pretreated wastewater stream, and 2) evaluate/project the impact(s) of pretreated wastewater land application to existing TDS concentrations in groundwater.  The impact analysis shall be submitted with the application materials required by Compliance Activity No. CA-103.4-06.
<b>CA-103.4-06</b> <b>Permit Application</b> <b>May 1, 2005</b>	Submit an permit application package to DEQ for the land application of pretreated wastewater on the Wolfe property and any other property for which the permittee is currently permitted to land-apply wastewater.

## H. Reporting Requirements

- 1.) The permittee shall submit an Annual Wastewater-Land Application Site Performance Report ("Annual Report") prepared by a competent environmental professional no later than January 31 of each year, which shall cover the previous year from November 1 through October 31. The Annual Report shall include an interpretive discussion of monitoring data (ground water, soils, hydraulic loading, wastewater etc.) with particular respect to environmental impacts by the facility.
- 2.) The annual report shall contain the results of the required monitoring as described in *Section F. Monitoring Requirements*. Sampling frequencies greater than those prescribed in the Monitoring Requirements for parameters listed shall be included in the Annual Report.
- 3.) The permittee shall submit monthly reports containing the results of monitoring requirements described in *Section F. Monitoring Requirements*. The report shall include monthly and cumulative year-to-date hydraulic loading rates and constituent loading rate for COD, nitrogen, TDIS, and phosphorous for each HMU for the water year beginning November 1. The monthly reports shall be submitted by the last day of the following month.
- 4.) All laboratory reports containing the sample results for monitoring required by *Section F. Monitoring Requirements* of this permit shall be submitted with the Annual Report.
- 5.) Notice of completion of any work described in *Section G. Compliance Schedule for Required Activities* shall be submitted to DEQ within 30 days of activity completion. The status of all other work described in Section G shall be submitted with the Annual Report.

## I. Standard Permit Conditions: Procedures and Reporting

1. The permittee shall at all times properly maintain and operate all structures, systems, and equipment for treatment, operational controls and monitoring, which are installed or used by the permittee to comply with all conditions of the permit or the Wastewater-Land Application Permit Regulations, in conformance with a DEQ approved, current Plan of Operations (Operations and Maintenance Manual) which describes in detail the operation, maintenance, and management of the wastewater treatment system. This Plan of Operations shall be updated as necessary to reflect current operations.
2. Wastewater must not create a public health hazard or nuisance condition as stated in IDAPA 58.01.02.600.03. In order to prevent public health hazards and nuisance conditions the permittee shall:
  - a. Apply wastewater as evenly as practicable to the treatment area;
  - b. Prevent organic solids (contained in the wastewater) from accumulating on the ground surface to the point where the solids putrefy or support vectors or insects; and
  - c. Prevent wastewater from ponding in the fields to the point where the ponded wastewater putrefies or supports vectors or insects.
3. The permittee shall:
  - a. Manage the wastewater land application treatment site as an agronomic operation where vegetative cover is grown and harvested or grazed to utilize the nutrients and minerals in the wastewater, and,
  - b. Not hydraulically overload any particular areas of the wastewater land application treatment site.
4. All waste solids, including dredgings and sludges, shall be utilized or disposed in a manner which will prevent their entry, or the entry of contaminated drainage or leachate therefrom, into the waters of the state such that health hazards and nuisance conditions are not created; and to prevent impacts on designated beneficial uses of the ground water and surface water. The permittee's management of waste solids shall be governed by the terms of the DEQ approved Waste Solids Management Plan, which upon approval shall be an enforceable portion of this permit.
5. If the permittee intends to continue operation of the permitted facility after the expiration of an existing permit, the permittee shall apply for a new permit at least six months prior to the expiration date of the existing permit in accordance with the Waste Water Land Application Permit Regulations and include seepage tests on all lagoons per latest DEQ procedures.
6. The permittee shall allow the Director of the Idaho Department of Environmental Quality or the Director's designee (hereinafter referred to as Director), consistent with Title 39, Chapter 1, Idaho Code, to:
  - a. Enter the permitted facility,
  - b. Inspect any records that must be kept under the conditions of the permit.
  - c. Inspect any facility, equipment, practice, or operation permitted or required by the permit.
  - d. Sample or monitor for the purpose of assuring permit compliance, any substance or any parameter at the facility.
7. The permittee shall report to the Director under the circumstances and in the manner specified in this section:
  - a. In writing thirty (30) days before any planned physical alteration or addition to the permitted facility or activity if that alteration or addition would result in any significant change in information that was submitted during the permit application process.
  - b. In writing thirty (30) days before any anticipated change which would result in non-compliance with any permit condition or these regulations.
  - c. Orally within twenty-four (24) hours from the time the permittee became aware of any non-compliance which may endanger the public health or the environment at telephone numbers provided in the permit by the Director (see below)

DEQ Regional Office: see Permit Certificate Page  
Emergency 24-Hour Number: 1-800-632-8000

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## I. Standard Permit Conditions: Procedures and Reporting

- d. In writing as soon as possible but within five (5) days of the date the permittee knows or should know of any non-compliance unless extended by the DEQ. This report shall contain:
    - i. A description of the non-compliance and its cause;
    - ii. The period of non-compliance including to the extent possible, times and dates and, if the non-compliance has not been corrected, the anticipated time it is expected to continue; and
    - iii. Steps taken or planned to reduce or eliminate reoccurrence of the non-compliance.
  - e. In writing as soon as possible after the permittee becomes aware of relevant facts not submitted or incorrect information submitted, in a permit application or any report to the Director. Those facts or the correct information shall be included as a part of this report.
8. The permittee shall take all necessary actions to prevent or eliminate any adverse impact on the public health or the environment resulting from permit noncompliance.
9. The permittee shall determine (on an on-going basis) if any noxious weed problems relate to the permitted sites. If problems are present, coordinate with the Idaho Department of Agriculture or the local County authority regarding their requirements for noxious weed control. Also address these control operations in an update to the Operations and Maintenance Manual.

## J. Standard Permit Conditions: Modifications, Violation, and Revocation

1. The permittee shall furnish to the Director within reasonable time, any information including copies of records, which may be requested by the Director to determine whether cause exists for modifying, revoking, re-issuing, or terminating the permit, or to determine compliance with the permit or these regulations.
2. Both minor and major modifications may be made to this permit as stated in IDAPA 58.01.17.700.01 and 02 with respect to any conditions stated in this permit upon review and approval of the DEQ.
3. Whenever a facility expansion, production increase or process modification is anticipated which will result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, or if it is determined by the DEQ that the terms or conditions of the permit must be modified in order to adequately protect the public health or environment, a request for either major or minor modifications must be submitted together with the reports as described in *Section H. Reporting Requirements*, and plans and specifications for the proposed changes. No such facility expansion, production increase or process modification shall be made until plans have been reviewed and approved by the DEQ and a new permit or permit modification has been issued.
4. Permits shall be transferable to a new owner or operator provided that the permittee notifies the Director by requesting a minor modification of the permit before the date of transfer.
5. Any person violating any provision of the Wastewater Land Application Permit Regulations, or any permit or order issued thereunder shall be liable for a civil penalty not to exceed ten thousand dollars (\$10,000) or one thousand dollars (\$1,000) for each day of a continuing violation, whichever is greater. In addition, pursuant to Title 39, Chapter 1, Idaho Code, any willful or negligent violation may constitute a misdemeanor.
6. The Director may revoke a permit if the permittee violates any permit condition or the Wastewater Land Application Permit Regulations.
7. Except in cases of emergency, the Director shall issue a written notice of intent to revoke to the permittee prior to final revocation. Revocation shall become final within thirty-five (35) days of receipt of the notice by the permittee, unless within that time the permittee request an administrative hearing in writing to the Board of Environmental Quality pursuant to the Rules of Administrative Procedures contained in IDAPA 58.01.23.
8. If, pursuant to Idaho Code, 67-5247, the Director finds the public health, safety or welfare requires emergency action, the Director shall incorporate findings in support of such action in a written notice of emergency revocation issued to the permittee. Emergency revocation shall be effective upon receipt by the permittee. Thereafter, if requested by the permittee in writing, a revocation hearing before the Board of Environmental Quality shall be provided. Such hearings shall be conducted in accordance with the Rules of Administrative Procedures contained in IDAPA 58.01.23.
9. The provisions of this permit are severable and if a provision or its application is declared invalid or unenforceable for any reason, that declaration will not affect the validity or enforceability of the remaining provisions.
10. The permittee shall notify the DEQ at least six (6) months prior to permanently removing any permitted land application facility from service, including any treatment, storage, or other facilities or equipment associated with the land application site. Prior to commencing closure activities, the permittee shall: a) participate in a pre-site closure meeting with the DEQ; b) develop a site closure plan that identifies specific closure, site characterization, or cleanup tasks with scheduled task completion dates in accordance with agreements made at the pre-site closure meeting; and c) submit the completed site closure plan to the DEQ for review and approval within forty-five (45) days of the pre-site closure meeting. The permittee must complete the DEQ approved site closure plan.

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# Appendix 1

## Environmental Monitoring Serial Numbers

### HYDRAULIC MANAGEMENT UNITS

Serial Number	Description	Acres
MU-010312	Pivot 1 and Fields 5, A, and B	111.4
MU-010313	Pivot 2	118.0
MU-010314	Fields 3, 4, E, and H	110.9
MU-010315	Pivot 7 and Fields D, F, and G	108.2
MU-010316	Pivot 6 and Field C	81.9
	Total:	530.4

### WASTEWATER SAMPLING POINTS

Serial Number	Description
WW-010303	Wastewater stream delivered to Wolfe site blending station. Sample prior to mixing with supplemental irrigation water.

### SUPPLEMENTAL IRRIGATION WATER SAMPLING POINTS

Serial Number	Description
SW-010303	Supplemental irrigation water from ground water at Wolfe site
SW-010304	Supplemental irrigation water from surface water at Wolfe site

# Appendix 1

## Environmental Monitoring Serial Numbers

### SOIL MONITORING UNITS

Serial Number	Description	Associated HMU
SU-010312	Pivot 1 and Fields 5, A, and B	
SU-010313	Pivot 2	
SU-010314	Fields 3, 4, E, and H	
SU-010315	Pivot 7 and Fields D, F, and G	
SU-010316	Pivot 6 and Field C	

### GROUND WATER MONITORING

Serial Number	Description	Location

Note: The number and location of ground water monitoring wells to be determined by Compliance Activity No. CA-103.4-03.

### PRIVATE WELL MONITORING

Serial Number	Description	Location
DW-0103.301		
DW-0103.302		
DW-0103.303		
DW-0103.304		
DW-0103.305		
DW-0103.306		
DW-0103.307		

Note: As specified in Section F

Appendix 2  
Site Map(s)

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Appendix 3  
Buffer Zone(s) Site Map

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